

NASA Office of the Chief Information Officer

Reshaping the Future with Focused Visioning

www.nasa.gov/offices/ocio/home/index.html

☒ Transparency ☐ Participation ☒ Collaboration

The mission of the NASA Office of the Chief Information Officer (OCIO) is to:

- Provide our workforce the information infrastructure and tools that adapt and evolve to support management, science, research, and technology programs
- Develop and implement unique and specialized IT systems to support mission planning and operations
- Provide systems that disseminate information to the public and that preserve NASA's information assets.

The information technology tools we use to conduct our business sets the behavior of how we collaborate internally and externally and determines the ease with which we can release information publicly. While the OCIO aligns to deliver these services today in a safe, efficient manner, we are setting our sites on tomorrow.

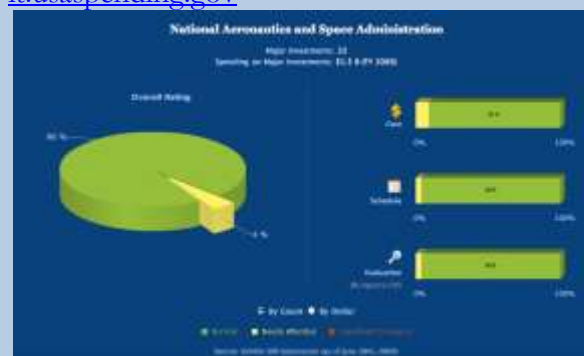
Overview

NASA Chief Information Officer (CIO) recently said to an open forum of NASA Center CIOs, “Why are we talking so much about ‘right-now’ technology instead of envisioning future technologies?” The business of Federal IT management typically takes shape through an annual budget exercise and legislated requirements articulated in OMB Circular A-130. To some degree the future is already the past by the time the Capital Planning and Investment Control (CPIC) process is completed and work begins on systems and applications.

Congressional legislation has prescribed the use of enterprise architecture to envision the future and provide a roadmap for sound investment decisions. The logic was to set out acceptable standards that contributed to future models so proposed procurements could be weighed against that model. Those that did not meet the standards were not part of the IT investment. The subtle trap in this kind of logical, practical approach is that senior leadership ends up spending most of their time justifying or managing the process of acquiring and implementing current technology solutions to increase the speed and improve performance of

NASA and IT Dashboard

it.usaspending.gov



NASA's IT spending score on IT Dashboard

NASA spent \$1.3B on 23 major investments for IT in Fiscal Year 2009 with 96 percent of our investments with a “green” score.

current business processes. Instead, a balanced approach should be taken between today's immediate needs and tomorrow's future vision, environment, and conditions that will dictate today's technology investments and pilot projects.

The E-Government Act of 2002 (Public Law 107 – 347) describes several goals for the government, which are in line with Open Government principles, such as increase opportunities for citizen participation, promote interagency collaboration, improve efficiency and effectiveness, reduce costs, promote better informed decision making, promote access to high quality information and make the government more transparent and accountable. NASA has actively participated and complied with eGov activities including being an active Partner Agency of the eRulemaking Program. NASA's leadership in Identity, Credential, and Access Management (ICAM) will also support Open Government initiatives by allowing partners (both within and outside of the Federal government) to access to our systems and facilitate collaboration without compromising security.

As we set our sights on the needs of tomorrow, we must recognize how the rapid growth of the Internet has changed how we use computers, access information, and collaborate. With mobile devices accessing the Internet expected to surpass one billion by 2013, the definition of a "computer" is changing with actual "computing" being done in clouds. Mobile devices, or platforms, will be less about computing and more about speed of access and usability.

The NASA Office of the CIO established the Chief Technology Officer for Information Technology (CIO- IT) position and will incorporate the Chief Technology Officers from each of the ten NASA Centers into an Chief Technology for IT Officer's Council. The charter for this council will be to look at the future predictions, new innovations, and creative ideas and formulate predictions for the future IT environment. The CIO- IT will explore pilot projects, such as the NASA Nebula Cloud Computing Platform and Semantic Search, as well as ways to decrease the environmental footprint of our IT infrastructure.

The Next Paperwork Reduction Act?

www.archives.gov/federal-register/laws/paperwork-reduction

 A sample of a government form, likely a permit or application, with various fields and checkboxes. The form is titled "25-C" and includes sections for "Applicant Information", "Project Description", and "Comments". It has a structured layout with lines for text entry and boxes for selection.

Adopting new technologies to remedy pressing problems of the past.

Paper reduction and the resulting Paper Reduction Act were focused on reducing paper based forms and applications that the public was required to complete in order to receive service from the government. The future vision would move functions to the Web. The public would then access services more directly by inputting data via Web-based tools. Correlating data collections will increase the speed of the request and delivery process.

How This Fits into Open Government

NASA's Open Government Framework gives a perspective on the interplay between policy, technology, adoption of the technology and interpretation of the policy or culture. The NASA Office of the Chief Information Officer is a nexus of these three tenets of Open Government. The future vision of a single Agency is much more effective if it is shared in part or in total by another Agency or the public. When NASA begins to engage the public to better understand the future state of IT within NASA, the public can directly participate and contribute to fulfillment of that vision. Additionally, this transition for NASA is the same for other government agencies and large organizations. Many partnership opportunities exist to experiment with pilot projects.

Open Government Goals

- Three Months
 - Establish the Chief Technology Officer for IT position.
 - Establish the Chief Technology for IT Officer's Council.
- Six Months
 - Convene the First NASA IT Summit in August 2010 to convene approximately 600 of NASA's IT community as well as partners in the private sector.
 - Establish the "itfuturestate Web site as a "visioning one stop" for public and private participation in creation and comment on future visions for IT within NASA. It should contain drivers (e.g., policies, guidelines, process documents, project links), and game playing that allows for free exchange of ideas.
 - Begin a pilot project with a public-private-partnership within NASA to begin "future testing" (smaller devices accessing applications and data remotely to perform all mission functions).
 - Propose cross-Agency visioning subcommittee under Federal CIO Council.
- One Year
 - Post results of pilot project to Web for review and comment.
 - Produce first future state document.
- Two Years
 - Hold future IT Summit to discuss Agency-wide and interagency predictions.

Useful Links

1. NASA on IT Dashboard: it.usaspending.gov
2. NASA IT Infrastructure Integration Program (I3P) Acquisitions: i3p-acq.ksc.nasa.gov/i3p/default.cfm
3. NASA CIO Summit (internal NASA):
www.nasa.gov/offices/ocio/itsummit/index.html
4. NASA IT Security: www.nasa.gov/offices/ocio/itsecurity/index.html
5. NASA CIO Organization Chart:
www.nasa.gov/offices/ocio/organization/index.html